

Amendments to the Claims:

The following Listing of Claims will replace all prior versions, and listings, of claims in the application:

1. – 32. (Cancelled)

33. (Cancelled)

34. (Previously presented) The method of claim 60, wherein modulating the pacing interval includes modulating an atrial to ventricular pacing delay.

35. (Previously presented) The method of claim 60, wherein the subsequently delivered pacing pulse comprises a pacing pulse delivered to a ventricle of the heart after the delivered pacing pulse.

36. (Previously presented) The method of claim 60, wherein detecting whether an autonomous intrinsic signal component is present within the heart comprises comparing a morphological characteristic of a past T-wave following a past pacing pulse known to fully capture the heart to the same morphological characteristic of a T-wave following the delivered pacing pulse.

37. (Cancelled)

38. (Previously presented) The method of claim 60, wherein a past ventricular signal further comprises a most recent ventricular signal resulting from a most recent pacing pulse.

39. (Cancelled)

40. (Previously presented) The method of claim 60, wherein the morphological characteristic includes at least one of a minimum amplitude of a signal, a maximum amplitude of a signal, a width of a signal, a slope of a signal, T-wave timing and T-wave amplitude.

41. (Currently amended) A device comprising:

at least one electrode to deliver a ventricular pacing pulse to a heart and sense a ventricular signal response to the delivered pacing pulse; and

a processor that modulates a pacing interval at which the ventricular pacing pulse is delivered to aid in detecting whether an autonomous intrinsic signal component is present within the heart, detects whether an autonomous intrinsic signal component is present within the sensed ventricular response within the heart after delivering the ventricular pacing pulse and extends [[a]] the pacing interval between the delivered pacing pulse and a subsequently scheduled pacing pulse responsive to the autonomous intrinsic signal component being detected,

wherein detecting whether an autonomous intrinsic signal component is present comprises: comparing a morphological characteristic of a past ventricular signal response to a past pacing pulse known to fully capture the heart to the same morphological characteristic of the sensed ventricular signal response to the delivered pacing pulse;

and

determining the ventricular signal response to the delivered pacing pulse originates from both autonomous intrinsic ventricular activity and the ventricular pacing pulse in response to the comparison of the morphological characteristics.

42. (Cancelled)

43. (Previously presented) The device of claim 41, wherein the processor modulates the pacing interval by modulation of an atrial to ventricular delay.

44. (Previously presented) The device of claim 41, wherein the electrode comprises an electrode to deliver a pacing pulse to a ventricle of the heart.

45. (Previously presented) The device of claim 41, wherein the processor detects whether an autonomous intrinsic signal component is present by comparing a morphological characteristic of a past T-wave following a past pacing pulse known to fully capture the heart to the same morphological characteristic of a T-wave following the delivered pacing pulse.

46. (Cancelled)

47. (Previously presented) The device of claim 41, wherein the processor compares a most recent ventricular signal resulting from a most recent pacing pulse to a ventricular signal resulting from a past pacing pulse known to fully capture the heart.

48. (Cancelled)

49. (Previously presented) The device of claim 41, wherein morphological characteristic comprises at least one of a minimum amplitude of a signal, a maximum amplitude of a signal, a width of a signal, a slope of a signal, T-wave timing and T-wave amplitude.

50. (Previously presented) The device of claim 45, further comprising a memory to store the past ventricular signal.

51. (Currently amended) A non-transitory computer-readable medium comprising instructions to cause a processor to:

control a pulse generator to deliver a ventricular pacing pulse to a heart;

modulate a pacing interval ~~modulates a pacing interval that at which~~ the ventricular pacing pulse is delivered [[at]] to aid in detecting whether an autonomous intrinsic signal component is present within the heart

sense a ventricular signal response to the delivered ventricular pacing pulse;

detect whether an autonomous intrinsic signal component is present within the sensed ventricular signal response within the heart after delivering the pacing pulse;
and

extend [[a]] the pacing interval between the delivered pacing pulse and a subsequently scheduled pacing pulse responsive to the autonomous intrinsic signal component being detected

wherein detecting whether an autonomous intrinsic signal component is present comprises: comparing a morphological characteristic of a past ventricular signal response to a past pacing pulse known to fully capture the heart to the same morphological characteristic of the sensed ventricular signal response to the delivered pacing pulse;

and

determining whether the ventricular signal response to the delivered pacing pulse originates from both autonomous intrinsic ventricular activity and the ventricular pacing pulse in response to the comparison of the morphological characteristics.

52. (Cancelled)

53. (Previously presented) The computer-readable medium of claim 51, wherein the instructions cause the processor to modulate the pacing interval by modulation of an atrial to ventricular delay.

54. (Previously presented) The computer-readable medium of claim 51, wherein the subsequently delivered pacing pulse comprises a pacing pulse delivered to a ventricle of the heart after the delivered pacing pulse.

55. (Previously presented) The computer-readable medium of claim 51, wherein the instructions cause the processor to detect whether an autonomous intrinsic signal component is present within the heart by comparing a morphological characteristic of a past T-wave following a past pacing pulse known to fully capture the heart to the same morphological characteristic of a T-wave following the delivered pacing pulse;

56. (Cancelled)

57. (Previously presented) The computer-readable medium of claim 51, wherein the past ventricular signal further comprises a most recent ventricular signal resulting from a most recent pacing pulse.

58. (Cancelled)

59. (Previously presented) The computer-readable medium of claim 51, wherein the morphological characteristic includes a minimum amplitude of a signal, a maximum amplitude of a signal, a width of a signal, a slope of a signal, T-wave timing and T-wave amplitude.

60. (Currently amended) A method comprising:
delivering a ventricular pacing pulse to a heart;
modulating a pacing interval at which the ventricular pacing pulse is delivered to aid in detecting whether an autonomous intrinsic signal component is present within the heart;
sensing a ventricular signal response to the delivered pacing pulse;
detecting whether an autonomous intrinsic signal component is present within the sensed ventricular signal response to the delivered pacing pulse; and

extending [[a]] the pacing interval between the delivered ventricular pacing pulse and a subsequently scheduled ventricular pacing pulse responsive to the autonomous intrinsic signal component being detected;

wherein detecting whether an autonomous intrinsic signal component is present comprises: comparing a morphological characteristic of a past ventricular signal response to a past pacing pulse known to fully capture the heart to the same morphological characteristic of the sensed ventricular signal response to the delivered pacing pulse;

and

determining whether the ventricular signal response to the delivered pacing pulse originates from both autonomous intrinsic ventricular activity and the ventricular pacing pulse in response to the comparison of the morphological characteristics.

61. (Currently amended) A method comprising:

delivering a pacing pulse to a heart;

modulating a pacing interval by randomly altering a delivery time of the pacing pulse to aid in detecting whether an autonomous intrinsic signal component is present within the heart;

sensing a signal response to the delivered pacing pulse;

detecting whether an autonomous intrinsic signal component is present within the sensed signal response to the delivered pacing pulse; and

extending [[a]] the pacing interval between the delivered pacing pulse and a subsequently scheduled pacing pulse responsive to the autonomous intrinsic signal component being detected;

wherein detecting whether an autonomous intrinsic signal component is present comprises comparing a morphological characteristic of a past signal response to a past pacing pulse to the same morphological characteristic of the sensed signal response to the delivered pacing pulse.